



Federal Air Surgeon's Medical Bulletin

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Aviation Safety Through Aviation Medicine

For FAA Aviation Medical Examiners, Office of Aviation Medicine Personnel, Flight Standards
Inspectors, and Other Aviation Professionals.

■PROMPT: Internet-Based AMCS On-Line October 1, 1999

BEGINNING OCTOBER 1, 1999, all US civilian aviation medical examiners (AMEs) will be required to submit their FAA Form 8500-8's via the Internet-based Airman Medical Certification System (AMCS). The new Internet-based system will replace the existing program and is scheduled to be accessible by September 30, 1999. Features, hardware, and software requirements were described in previous issues of the *Bulletin*.

Final operating instructions will be sent to all AMEs prior to the actual October 1 start-up date.

ECG Transmission Upgrade

Another important change due on October 1 is a planned upgrade of the FAA electrocardiographic (ECG) system to an all-digital transmissions operation. All senior AMEs will be required to transmit their ECGs via digital electronic data transfer. The majority of senior AMEs will not be directly affected, other than to see improved service levels. Users of the CompuMed and GDXI service bureaus will not be affected.

For more information, write:
FAA Civil Aeromedical Institute
Aeromedical Certification Division
AAM-300, P.O. Box 26080
Oklahoma City, OK 73126

Air Rage: Modern-Day Dogfight

Increasing Incidents of 'Disruptive Passenger Syndrome' Seen by Airlines as Alarming Trend

By Capt. Donato J. Borrillo, MD, JD



The number of incidents reported by all airlines attributable to Air Rage rose from 296 in 1994 to 921 in 1997. Congress will be debating a bill (S. 1139) introduced to deter Air Rage by increasing the civil penalty from \$1,100 to \$25,000 and helping the industry deter such dangerous behavior.

—Editor

A disruptive passenger is characterized as one who interferes with aircrew duties, the quiet enjoyment of fellow passengers, or creates an unsafe flight environment. Disruptive Passenger Syndrome is multifaceted, combining antisocial behavior, the use of alcohol, and perceived loss of control.

Resulting disruptive passenger incidents may include assault, battery, and a wide spectrum of other behavior. Aviation medical examiners

Continued on page 11...

THE FIRST INTERNATIONAL Conference on Disruptive Airline Passengers was held in April 1997. From this conference, the airlines' experience with passenger violence aboard aircraft indicated an alarming pattern: From 1994 to 1995, American Airlines reported a three-fold increase (296 to 882) of in-flight disruptive passenger incidents; similarly United Airlines noted an almost two-fold increase from 1995 to 1996 (226 to 404).

The diagnosis of "Disruptive Passenger Syndrome" has been established; therefore, it is incumbent upon the aviation medical examiner to understand the aeromedical basis for "Air Rage" and the legal measures available to aircrew members when these incidents occur.

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The Federal Air Surgeon's Column

Dealing With Change

DEPENDING ON THE INDIVIDUAL'S PERSPECTIVE, confronting and dealing with technical and organizational change presents one of the greatest challenges managers or employees face during their working lifetime. And yet, everyone knows, or should know, that change is inevitable and, in many cases, absolutely necessary.

Federal Air Surgeon's Medical Bulletin

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The Federal Air Surgeon's Medical Bulletin is published quarterly for Aviation Medical Examiners and others interested in aviation safety and aviation medicine. The Bulletin is prepared by the FAA's Civil Aeromedical Institute, with policy guidance and support from the Office of Aviation Medicine. An Internet on-line version of the Bulletin is available at: <http://www.cami.jccbi.gov>

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During the time I have spent as a manager in the Office of Aviation Medicine, I have had the opportunity to witness relatively dramatic changes in the content and administration of FAA's programs, not the least of which have been changes in the medical programs. Organizational structure has undergone numerous modifications to accommodate, among others, changing program needs and new management philosophies. Advances in technology and fresh ideas by new as well as experienced employees and managers have opened both minds and doors to innovative changes.

With the advent of required electronic transmission of airman medical certification data and the digital electronic transmission of electrocardiograms, we are about to experience a dramatic change in respect to the management of the airman medical certification system. We recognize that for some aviation medical examiners this change will present a significant challenge. With the institution at the Aeromedical Certification Division of the document imaging workflow system that encompasses the receipt of electronically transmitted medical data and permits the electronic storage and processing of all medical certification data, our staff at the Division will be challenged in adjusting to this new way of "doing business." While adjusting to this change has the potential for being somewhat painful and disruptive, its implementation is absolutely essential if we expect to improve the quality and efficiency of the medical certification process.

In speaking of change, I am also reminded that significant adjustments are required when "key" personnel either join or leave an organization. In the last several years, the Office of Aviation Medicine has experienced new vitality through the addition of



Jon L. Jordan, MD, JD

highly energetic and innovative employees. On the other hand, we have also experienced some negative change as a result of losses of employees. One such loss has now occurred that significantly impacts civil aviation medicine generally as well as me personally.

Dr. William H. Hark stepped down as Deputy Federal Air Surgeon on July 2, leaving a void in the office that is difficult to fill. I have known Bill for the better part of 30 years and have worked with him closely for more than 20. He has been my teacher, counsel, and friend through all these years, and he has had an incalculable influence on the development and administration of civil aviation medical programs in the United States.

While I usually view the opportunity for change in a positive and enthusiastic manner, this is one that I do not relish.

I wish Bill well in his retirement, and I recognize that this is a direction that we all must take sooner or later. Nonetheless, dealing with his departure presents one of the most difficult organizational challenges that the Office of Aviation Medicine and I have had to face in many years. Although this is a painful problem, I feel certain that we will deal successfully with it, just as I feel certain that we all will deal successfully with the changes now imminent for the medical certification system.

JLJ

Deputy Federal Air Surgeon Retires

William H. Hark, MD, Deputy Federal Air Surgeon in the FAA's Office of Aviation Medicine, has retired after 42 years in the practice of aviation medicine. He has served in that position since 1992 and has now completed his second distinguished government career.

Dr. Hark's first career began as a military flight surgeon with the US

Army in 1956 and concluded with his retirement with the rank of colonel after 20 years' service. He was known for the significant contributions made to the furtherance of aviation medicine through the areas of administrative, medical standards, and education.

His second career began in 1976 in the Office of Aviation Medicine, where he first managed the Aeromedical Standards Division and later, the Medical Specialties Division. With his military experience guiding him, Dr. Hark excelled in his FAA positions, exercising responsibility for the development of regulations, policies, and procedures related to airman medical certification. He guided the agency's aeromedical research efforts and was responsible for administering the FAA's certification appeals functions, as well as developing regulatory and certification policies. He has been involved in the review and disposition of literally thousands of complex medical cases presented for decisions by several Federal Air Surgeons.

Largely as a result of Dr. Hark's efforts, an extensive review of FAA certification practices in all medical specialty areas was successfully conducted by the American Medical Association. To assure that current medical concepts are applied to aeromedical certification decisions, he formed working relationships with medical professionals in organizations like the American Diabetes Association and the American Academy of Neurology.



As a key participant in the agency's regulatory and medical certification decision-making process over the years, Dr. Hark worked to assure fair and equitable certification decisions to all airmen. He has maintained a level of professionalism that fosters the application of contemporary medical science to arrive at appropriate certification

decisions. Accordingly, major strides have been made in the enhancement of aviation safety. In recognition of his notable achievements, Dr. Hark was honored with the 1989 Tamisiea Award from the Aerospace Medical Association, and in 1996 he received the Secretary of Transportation's Award for Meritorious Achievement.

A native of Charleston, W.Va., Dr. Hark received his medical degree from the Medical College of Virginia in 1957 and an MPH from the Harvard School of Public Health in 1963. He is certified in Aerospace Medicine by the American Board of Preventive Medicine, and is a Fellow of both the Aerospace Medical Association and the American College of Preventive Medicine. Dr. Hark is also a member of the Association of Military Surgeons of the United States and is licensed to practice medicine in Virginia and West Virginia.

A replacement will not be easy to find. According to Federal Air Surgeon **Jon Jordan**, "Finding someone with the equivalent of Bill's training, experience, expertise, and profound good judgment presents an almost impossible task."

We wish Dr. Hark well upon the completion of his second career and salute him for all he has accomplished during his 42 years in aviation medicine. Perhaps there is a third distinguished career awaiting his attention...



Aeromedical Certification Update Clarifying AMCS Internet Access

Warren S. Silberman, DO, MPH

Because of some confusion that has arisen in respect to my article on the Airman Medical Certification System (AMCS) that appeared in the spring 1999 *Federal Air Surgeon's Bulletin*, I shall take this opportunity to provide you with clarifying information.

Interactive AMCS

In the Prologue portion of my article, I referenced AME access to medical information on file at the Aeromedical Certification Division (AMCD) in Oklahoma City. Keeping in mind that the ultimate certification goals of the Office of Aviation Medicine are "correct certification" and "same-day certification" of airmen, interactive access to data in our files is probably the only way to make this happen for some airmen. While this may be our dream for the future, we are not prepared to institute such a system now. To do so would require a great deal of planning and preparation, including the resolution of significant privacy concerns regarding access to airman medical records.

Validation

In answer to the question of whether data must be entered while the applicant is in your office, I indicated "no" but also suggested that you must enter and validate the application before issuing the certificate to the applicant. From the applicant's and the FAA's perspective, this would be the preferable procedure to follow because it would ensure that only complete and accurate information is transmitted to the AMCD. For example, if the applicant fails to complete an item on the front side of the form and has left your office before the data are transmitted, it will be necessary for you to contact the airman to obtain the information before transmission.

As to the use of the word "validation," I did not intend to imply that the AMCS would be making the

Continued on page 8...

MEETINGS CALENDAR

UPCOMING INTERNATIONAL EVENTS OF INTEREST FOR '99

July 11-16, Victoria, BC, Canada.

Flying Physicians Association
Annual Meeting. Info: FPA HQ,
P.O. Box 677427, Orlando, FL
32867; Phone: (407) 359-1423;
FAX: (407) 359-1167; E-mail:
75114.1632@compuserve.com;
Web site: www.fpadrs.org

August 1-5, Williamsburg, Va.

Annual Toxicology Symposium.
Info: AIHA, 2700 Prosperity Ave.,
Suite 250, Fairfax, VA 22031; E-
mail: infonet@aiha.org Web site:
www.aiha.org

August 17-22, Zhukovsky, Russia.

MAKS '99: International Aviation
and Space Salon. Info: Robin
Estey, American Aerospace and
Defense Industries, Inc., 103
Carnegie Center, Princeton, NJ
08540; Phone: (609) 987-9050;
Fax: (609) 987-0277; E-mail:
restey@aadi.net
Web site: www.aadi.net

August 22-26, Budapest, Hungary.

International Congress of Aviation
and Space Medicine. Info: Dr.
Gabor Hardicsay, ICASM, PO Box
41, H-1675, CAA Hungary,
Budapest; Phone/FAX:
+36-1-280-0030; E-mail:
hardi@mail.datanet.hu

Sept. 15-19, Toronto, Canada.

CAMA Annual Scientific Session.
Info: Jim Harris, CAMA Headquar-
ters, PO Box 23864, Oklahoma
City, OK 73123-1053; Phone
(405) 840-0199; FAX: (405) 848-
1053; E-mail: JimHarris@aol.com
Web site: www.civilavmed.com

Sept. 27-Oct. 1, Houston, Texas.

Annual Meeting of the Human
Factors and Ergonomics Society.
Info: HFES, PO Box 1369, Santa
Monica, CA 90406-1369; Phone:
(310) 394-1811; FAX: (310) 394-
2410; E-mail:
hfes@compuserve.com
Web site: hfes.org

October 21-23, Atlantic City, N.J.

AOPA Expo '99. Info: Warren
Morningstar; Phone: (301) 695-
2162; E-mail
warren.morningstar@aopa.org

AME TRAINING

MILESTONE. At the June AME
Basic seminar, Dr. Matthew
Miriani (center) discovers he is
the 20,000th person to attend
the Aircraft Passenger Emerg-
ency Evacuation Procedures
course since its inception in
1987. Presenting a certificate is
CAMI Director William E.
Collins, PhD, as the course
designer and instructor,
Charles Chittum, looks on.



AVIATION MEDICAL EXAMINER

Seminar Schedule August 1999 – May 2000

DATES	CITY	CODES
1999		
August 20 -22 -----	Kansas City, Mo. -----	OOE (2)
September 13 - 17 -----	Oklahoma City, Okla. -----	Basic (1)
October 29 - 31 -----	Charleston, S.C. -----	N/NP/P (2)
December 6 - 10 -----	Oklahoma City, Okla. -----	Basic (1)
2000		
January 14 - 16 -----	West Palm Beach, Fla. -----	AP/HF (2)
March 20 - 24 -----	Oklahoma City, Okla. -----	Basic (1)
April 28 - 30 -----	Washington, D.C. -----	Cardio (2)
May 15 - 18 -----	Houston, Texas -----	N/N/P (3)

CODES

- (1) A 4½ -day AME seminar focused on preparing physicians to be designated as Aviation Medical Examiners. **Call your Regional Flight Surgeon.**
- (2) A 2½ -day AME seminar consisting of approximately 12 hours of AME-specific subjects plus 8 hours of subjects related to a designated theme. **Registration must be made through the Oklahoma City AME Programs Office: (405) 954-4830 or 954-4258.**
- (3) A 3½ - day AME seminar held in conjunction with the Aerospace Medical Association (AsMA). **Registration must be made through AsMA. (703) 739-2240.**

AP/HF	Aviation Physiology/Human Factors Theme Seminar
Cardio	Cardiology Theme Seminar
OOE	Ophthalmology-Otolaryngology-Endocrinology Theme
N/NP/P	Neurology/Neuro-Psychology/Psychiatry Theme

The Civil Aeromedical Institute is accredited by the Accreditation Council for Continuing Medical Education and the American Academy of Family Physicians to sponsor continuing medical education for physicians.

How to Be a Successful AME

8 Steps to Sure Results

Don C. Ross, DO

I have enjoyed being an aviation medical examiner for nearly 40 years. My greatest satisfaction is when I work with pilots who have serious illnesses—diabetes, coronary artery disease, prostate cancer, etc.—that could end their flying careers. I send all the relevant medical records to the Aero-medical Certification Division (AMCD) in Oklahoma City, and when the pilot receives a letter from Dr. Silberman [AMCD manager] with that certificate enclosed, the excitement that pilot has at that moment can hardly be measured, unless you're a pilot yourself.

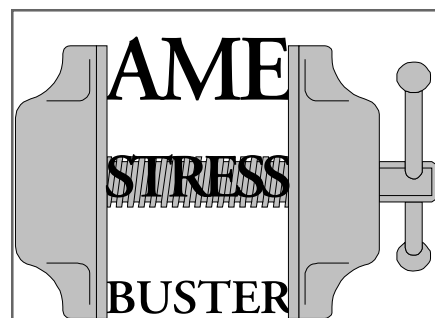
These are some of the guidelines I developed over the years that will absolutely guarantee success with your pilots:



Dr. Ross (above) is an osteopathic physician practicing in Detroit, Mich. He has been an aviation medical examiner since 1960. He is also active in aviation, with an Airline Transport Pilot, single and multi-engine land, Certified Flight Instructor-Instrument, and helicopter ratings; for some unknown reason, he has made nine parachute jumps.

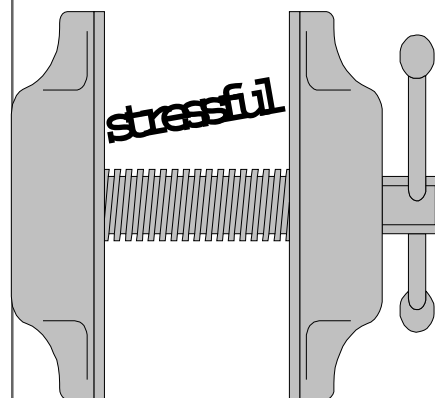
1. **Interest.** Being a pilot or having a real interest in aviation is a *must*. (I am an aviation safety counselor, medical review officer, and US Air Force medical examiner.)
2. **FAA Medical.** Try to keep up on all the new regulations, know your *Guide for Aviation Medical Examiners*, read the *Federal Air Surgeon's Medical Bulletin*, and attend as many FAA aviation medical examiner seminars as you can.
3. **Be Available** (VERY important!). When a pilot calls for an appointment, make it as soon as possible.
4. **Relate.** Being a pilot helps. You have something in common; it makes pilots more comfortable. They will come back.
5. **Problem Cases.** Try to handle them with enthusiasm. Sometimes it takes a lot of extra effort, calls, letters, etc. But it is really appreciated by the pilot. (Especially those with CA of the prostate, CABG, pacemakers, etc.)
6. **Telephone Calls and Questions.** Personally speak with the pilot on the phone and try to answer all requests. Call the AMCD in Oklahoma City if you have a problem case and need an answer. The doctors and staff are great.
7. **Charges.** This seems to always be asked at FAA seminars. I charge the same for first-, second-, and third-class physicals, even with additional work involving phone calls to the AMCD, doctors' offices, etc. I don't charge more for these services.
8. **Follow-up.** After the FAA physical, I always ask pilots to call me if they have any problems or questions relating to their FAA medical.

My final comments: The digital ECG machine is really neat. The AMCS program will help eliminate all those little omissions that are possible without the system. In the end, it will make the pilot, AME, and the staff and doctors of AMCD happy.



Be sure to order enough Airman Medical Certificate forms (FAA Form 8500-8) to last one year. When you deplete half of your supplies, order another year's supply.

If you follow this routine for restocking your medical forms, you should never be in the



position of having an airman arrive for an FAA physical, only to find you are out of medical examination forms!

Muscle Spasms Controlled by Poison

Case Study, by Michael Feinberg, MD, MSPH

BOTULINUM NEUROTOXIN, a derivative of the deadly toxin associated with food poisoning, is used to treat several neurological conditions, including dystonia. The FAA Aeromedical Certification Division (AMCD) recently reviewed three cases concerning airmen who had been treated with botulinum neurotoxin, which is proving to be safe and effective treatment for aviators for relief from several debilitating medical conditions.

These three airmen each had a type of cranial cervical dystonia that involve an involuntary, sustained contraction of the periorbital, facial, oromandibular, pharyngeal, laryngeal, or cervical muscles.

Background

Botulinum neurotoxin is produced by the bacterium *Clostridium botulinum*, which can only grow in an anaerobic atmosphere—in canned foods, for example, that have been improperly processed, usually a product imperfectly canned at home. Once the toxins (which are impervious to destruction by the enzymes of the gastrointestinal tract) have entered the body, they interfere with the transmission of nerve impulses, causing disturbances in vision, speech, and swallowing—and ultimately, paralysis of the respiratory muscles.

Why deliberately use such a deadly toxin on human beings? Efficacy of this toxin appears to be due to the weakening of a muscle sufficient to reduce spasms—but not so much as to cause paralysis. The toxin works by blocking transmission of acetylcholine at the neuromuscular junction. Because botulinum toxin binds rapidly and with high affinity to nerve terminals, local injections of small amounts of the toxin produce focal weakness without serious systemic side effects (1).

Nuchal dystonia, or torticollis, is the most common form of adult-onset dystonia. The head can be deviated in any combination of directions including towards the back, to the front, or laterally, with tilting of the head to the shoulder. The movements may be severe enough to produce rhythmic jerking movements of the head.

With respect to the larynx, the major dystonic feature of laryngeal muscles is an action dystonia of the adductors, causing spastic dysphonia. In this situation, speech comes out tight and restricted, with much breaking of the smooth flow of words (2).

The second most common form of dystonia is blepharospasm. It typically begins with increased blinking of the eyelids. Some patients may complain of eye irritability or the feeling of sand in the eye. With progression, there is more sustained closure of the lids. This closure can be brief or prolonged and can occur many times during the day. It can lead to legal blindness (3).

Previous Research

In one large study by Jankovic (2), the effects of botulinum toxin were observed after it was given to patients with different forms of focal and segmental dystonias. These patients had involvement of their eyelid, oromandibular, pharyngeal, laryngeal, or cervical regions and had been disabled, despite pharmacological or surgical therapy. The first nine patients were included in an open trial to determine the range of effective dosages and adverse reactions and to gain experience with the injection technique. These nine patients and all later patients were



randomized to receive, in a double-blind manner, either botulinum A toxin or saline placebo.

The patients were examined one week after each injection to determine any early beneficial or adverse effects, and then were rated at monthly intervals. There were 95 eyelid injections in the open and controlled

trial, 68 with toxin and 27 with placebo. Complications included blurring of vision in six, tearing in five, ecchymosis in four, ptosis in two, and diplopia in one. All of these complications occurred with the toxin, except for one case of ecchymosis due to a placebo injection. The adverse reactions resolved in a few days, but in one patient, ptosis persisted for three weeks. Patients who had spasmodic dysphonia were injected into the posterior pharyngeal muscles. Most of these patients improved, with the chief side effect being mild hoarseness. The torticollis patients reported subjective improvement of pain and decreased jerking. Overall, there were no systemic side effects, and local complications were minor or transient, occurring chiefly in the blepharospasm patients. All adverse symptoms cleared within one to three weeks.

In a study by Gelb (1), a controlled trial of botulinum toxin injections in the treatment of spasmodic torticollis was performed on 20 patients with isolated torticollis of one-year's duration. Of the patients who received botulinum toxin injections, the overall rate of subjective improvement was 80%. This study provided further evidence for the efficacy of local injections of botulinum injections in the treatment of torticollis.

Continued...

Dr. Feinberg is a medical officer in CAMI's Aeromedical Certification Division. His FAA experience is preceded by work as a United Airlines flight surgeon, where he provided medical care to company personnel. Prior to this, he worked in other occupational medicine settings—as medical director for Texaco in Universal City, Calif., as well as interim medical director for the GM plant in Georgia. He earned his medical degree at Albert Einstein College of Medicine and the Master of Science degree in Public Health from UCLA in 1992.

Aeromedical Disposition

The current *Guide for Aviation Medical Examiners* (4) clearly states that a "history or presence of any neurological condition or disease that potentially may incapacitate an individual should be regarded as initially disqualifying. Issuance of a medical certificate to an applicant in such cases should be denied [by the aviation medical examiner] or deferred [to the AMCD] pending further evaluation." However, this guide also states that "spasticity, weakness, or paralysis of the extremities," if they are "stable and non-progressive may be considered for medical certification." Finally, the guide states that "extrapyramidal, hereditary, or degenerative diseases of the nervous system" (including dystonia musculorum deformans) would warrant deferral by the AME preliminary to a "complete neurological evaluation with appropriate laboratory and imaging studies necessary for determination of eligibility for medical certification."

Of the three airman applicants who had been treated with botulinum neurotoxin; one was afflicted with spasmodic torticollis, one with spasmodic dysphonia, and one with essential blepharospasm. They clearly have a neurological disease that may be incapacitating, with elements of spasticity that are extrapyramidal in origin, since dystonias originate in the basal ganglia. However, the control that was conferred by botulinum toxin injections was impressive.

The airman with spasmodic torticollis received 222 units of botulinum toxin in July 1997. In April 1998, the applicant notified the AMCD that nine months had elapsed since the last injection, and his treating physician's report indicated that he had full range of motion of his neck with no recurrence of the dystonia. He was issued a class 2 license in May 1998, with a follow-up neurological examination to precede his next class 2 medical license.

The next airman is a class 3 pilot with adductor spasmodic dysphonia, which causes speech to come out tight

and restricted with a break in the smooth flow of words. As opposed to difficulty in reading instruments and observing traffic, which would be apparent with torticollis and blepharospasm, the major concern here would be in communicating with air traffic control. He was seen for the first time in August 1997 by an ENT physician and was given botulinum injections into the thyroarytenoid muscles. He had a two-week period of hoarseness, followed by a return to a normal voice. His ENT physician explained that the prognosis of this disease is very good, although it is often a lifetime problem, with the combination of speech therapy and botulinum injections being effective in maintaining a normal voice—except during the periods of side-effects immediately after the botulinum injections. The applicant was seen by his AME in September 1997 and was issued a medical certificate, with AMCD endorsement through September 1999 but with a request for a current status from his treating physician prior to his next AME physical.

The last airman is a class 3 applicant who was diagnosed in 1991 with essential blepharospasm in his left eye. He underwent an eye evaluation (as per the FAA's Form 8500-7 specifications) which showed he met central and peripheral vision standards but had essential blepharospasm. The airman was issued a medical certificate in 1991 with a follow up examination to occur prior to this certificate's expiring in June 1992. On his 1991 AME examination, it was mentioned that he had received shots from his doctor for blepharospasm. When he was seen in June 1992 by his treating physician, there was no evidence of blepharospasm. In March 1993, he saw a neurosurgeon, who stated that the spasms had progressed, and although the pilot had relief from five previous botulinum injections, he now had involvement of his orbicularis oris and platysma muscles. He was believed to have left hemifacial spasm,

and a recommendation was made for a retromastoid craniectomy and microvascular decompression of the seventh cranial nerve. After this procedure, the patient still had an occasional twitch in his left eye. In July 1993, he was seen again by his treating neurosurgeon and was felt to be doing well, with only a trace of spasm. The applicant was issued an airman medical certificate in February 1994 with a follow up neurological report due at the time of his next AME examination. In December 1995, a neurological exam by his treating physician was entirely normal. While this is a mixed picture of blepharospasm and hemifacial spasm, clearly, this airman benefited from botulinum toxin injections.

Summary

The three airmen studied here responded well to botulinum toxin injections. Since clinical studies (1,2) note that the longest adverse effect appears to last three weeks, a 21-day grounding period should be implemented after botulinum toxin injections, with resumption of flight privileges after this observation period. Issuing a restricted certificate requiring annual follow-up examinations, as long as botulinum is needed, would be sensible. If any adverse changes occur between injections, the individual undergoing this treatment is obliged not to perform flight duties until cleared to do so by the FAA.

References

1. Gelb DJ. Controlled trial of botulinum toxin injections in the treatment of spasmodic torticollis. *Neurology*. 1989; 39 (1): 80-4.
2. Jankovic J. Botulinum A toxin for cranial-cervical dystonia: a double-blind, placebo-controlled study. *Neurology*. 1987, 37 (4):616-23.
3. Fahn S. The varied clinical expressions of dystonia. *Neurological Clinics*. 1984; 2 (3): 541-54.
4. Federal Aviation Administration. *Guide for Aviation Medical Examiners*, pp. 62,64,65, 1996.



CLARIFY from page 3

certification decisions rather than the AME. The Internet version of the Form 8500-8 works this way: When you complete each page and reach the bottom, you will click on either the GO BACK or NEXT PAGE button. If you click on the NEXT PAGE button, you will be "validating" that all the information on that page is complete. If you have omitted an answer to a question or failed to provide an explanation, you will be prompted to provide a response. Since discussion with the airman may be necessary to enter the correct information, it would be preferable to transmit the data in his or her presence. If you do not contact the airman for the information and you ignore the prompt to provide a response, the program will default to "no" – which means you will be transmitting incorrect information. When prompted to provide an explanation to a positive answer, the examination will still transmit even if you don't place anything in the space. While transmitting incorrect information is absolutely unacceptable, we do not recommend that you withhold issuing the certificate pending your data input unless the airman is in full agreement. Please remember, our goals are "correct certification" and "same-day certification!"

Incomplete Examinations

If, for any reason, an airman fails to complete the examination, you should not attempt to transmit partial information using AMCS. Under such circumstances, you must mail the incomplete hardcopy of Form 8500-8. You should write in Block 60 of the form that the airman left your office before completing the examination and the reasons (if known) for doing so. If you believe that the applicant will return to complete the examination, you may hold the incomplete Form 8500-8 for up to 14 days—but no longer—before sending it to the AMCD. Also, please send these incomplete forms separate from other forms so that we can enter the information in our database as soon as possible.

AMCS Certificate Issuance

The thought that AMCS will be sufficiently interactive to enable the AMCD to automatically affirm the issuance of a certificate and actually produce a printed certificate is only a dream at this time. As in the past, you will make the initial certification decision, but that decision will be subject to further review at the AMCD. Furthermore, the system will not now automatically print out a certificate, so you will be issuing the certificate attached to the Form 8500-8 just as you did previously.

Hard Copies

You will be entering examination data into the AMCS as the examinations are completed. Because of legal and Privacy Act issues, however, we must ask that you hold hard copies of the Form 8500-8, and send them by mail to the AMCS at the end of each month. For compliance and enforcement reasons, we need to maintain a copy of the front side of the Form 8500-8 that has been signed by the airman. In cases of falsification by the airman, this will usually avoid the necessity of asking an AME to testify in a National Transportation Safety Board hearing. Also, since the Privacy Act imposes certain responsibilities regarding the maintenance of original records, sending those forms to the AMCD will relieve the AME of those responsibilities and reduce both your and the FAA's liability for possible mishandling of records.

Therefore, the appropriate process for dealing with the Form 8500-8 is as follows:

1. The applicant completes the front side of the form and signs.
2. The AME and staff conduct the examination. The results of the examination need not be entered on the back side of Form 8500-8, but it may be used by the staff and the AME as a worksheet.
3. The examination data are then transmitted to the AMCD, and the certificate is issued (assuming the airman is qualified) – or, as an alternative,

the examination is completed, the certificate is issued, and the data are later transmitted to the AMCD.

4. The hard copy Form 8500-8's are placed in a file and are sent to the AMCD at the end of each month. There is no need for the AME to transfer examination results to the back of Form 8500-8 or sign the form before sending it to the AMCD.

We recognize that the need to send in hard copies partially defeats the purpose of the AMCS. We are working to resolve this – possibly through use of an electronic signature. Until resolved, we will have to put up with this inconvenience.

Disconnects

Another concern that has been brought to my attention is the possibility of being disconnected from the Internet while submitting examination results. I have been assured that the system will allow the resumption of interrupted sessions for at least several days following the interruption – without the loss of previously entered data. The problem could occur with the Internet service you purchase. You may wish to check with your phone company or cable television company for information about their respective Internet service capabilities.

For More Information

I will provide you with information as questions arise. We will be sending out instructions on how you will be able to log on to the system as the system "kick-off" time approaches. Please call our AMCS Hotline at (405) 954-3238, or drop me a letter if you have concerns that I have not addressed. My address is:

Warren S. Silberman, DO, MPH
FAA Civil Aeromedical Institute
AMCD, AAM-300
P.O. Box 26080

Oklahoma City, OK 73126

I regret any confusion that may have resulted from the earlier information provided. We in the Aeromedical Certification Division want to make the transition into the Airman Medical Certification System as smooth and trouble-free as possible

Dr. Silberman manages the Civil Aeromedical Institute's Aeromedical Certification Division.



Show the Airman Information Sheet

Warren Silberman, DO

Concerns about the failure of some aviation medical examiners to give applicants for medical certificates the "Information for Applicant" sheet that is attached to FAA Form 8500-8 arose during a recent meeting I had with a representative of the FAA's Chief Counsel. The meeting was to discuss section 61.15(e) (14 C.F.R. 61.15(e)) of the regulations. Part 61 of the Federal Aviation Regulations pertains to the certification of pilots and instructors. Section 61.15(e) provides that the holders of these certificates must report **each** motor vehicle action within 60 days of the action to:

FAA Civil Security Division
AMC-700, P.O. Box 25810
Oklahoma City, OK 73125

They **also** must report the action on all future applications for airman medical certification. Under section 61.15(c), a motor vehicle action includes:

- ✓ conviction for DWI (alcohol or drugs);
- ✓ the cancellation, suspension, or revocation of a license to operate a motor vehicle which is alcohol or drug related; and,

✓ denial of an application for a license to operate a motor vehicle that is alcohol or drug related.

Failure to report such an action is grounds for denial of an application for any certificate, rating, or authorization issued under Part 61 and for suspension or revocation of any certificate, rating, or authorization already held.

I don't know the last time you read the information sheet, but it has some important information! Among other things, it reminds airman applicants that, when reporting their medical history on Form 8500-8, they must answer "YES" if they ever had or presently have a specifically listed medical condition:

18. MEDICAL HISTORY —

Each item under this heading must be checked either "yes" or "no." You must answer "yes" for every condition you have ever had in your life and describe the condition and approximate date in the EXPLANATIONS box.

On the Form 8500-8, item 18 includes a query regarding convictions for alcohol or drug offenses: When does an applicant answer "YES" to question 18 v? The answer: When there has been a history of:

- (1) **any conviction(s) for an offense involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug; or,**
- (2) **a history of any conviction(s) or administrative action(s) for an offense(s) which resulted in the denial, suspension, cancellation, or revocation of driving privileges or which resulted in a requirement for attendance at an educational or rehabilitation program.**

The Federal Air Surgeon asks that you make sure your airmen are given the opportunity and encouraged to read this page, especially the information on reporting requirements for alcohol and drug offenses.



Possible Link Found Between Supplements and Serious Illness

Confirming Mayo Clinic research, the Food and Drug Administration (FDA) has identified impurities in certain dietary supplements that might be related to the illness eosinophilia-myalgia syndrome (EMS).

The supplements, some 5-hydroxy-L-tryptophan (5HTP) products, are being used for insomnia, depression, obesity, and, in children, attention deficit disorder.

While the significance of FDA's finding remains unknown, the agency believes vigilance towards these products is warranted. FDA is unaware of any recent illnesses associated with 5HTP products being sold as dietary supplements; however, the widespread promotion and use of these products began only recently.

In 1991, an impurity associated with 5HTP, called Peak X, was identified in one case of EMS. Impurities similar to Peak X also were found in L-tryptophan that was associated with a 1989 epidemic of EMS. Also, the medical literature includes reports of 10 previous EMS cases worldwide associated with 5HTP products. The exact cause of the 1989 and 1991 cases of EMS remains unclear.

EMS is a serious illness characterized by a rise in certain white blood cells and severe muscle pain. The national Centers for Disease Control and Prevention (CDC) has identified more than 1,500 cases of EMS, including 38 deaths, associated with L-tryptophan.

The FDA is working with the CDC and the National Institutes of Health to monitor use of 5HTP products and is consulting with professional and patient groups. The agency encourages the public to report serious adverse reactions to the agency's MedWatch program. To report adverse reactions, professionals and consumers can call 800-FDA-1088 (800-332-1088).

Doctors and other health-care professionals also may send the information by facsimile to 800-FDA-0178 (800-332-0178) or by mail using a postage paid form to:

FDA, HF-2,
5600 Fishers Lane
Rockville, MD 20852-9787



New Simulator a Virtual Reality

Melchor Antuñano, MD and J.R. Brown

Official FAA Photo by Rick Butler

THE AEROMEDICAL EDUCATION Division of the FAA Office of Aviation Medicine's Civil Aeromedical Institute (CAMI) is testing the first of its kind aviation safety application for virtual reality technology. The new device will be used to instruct pilots in safety issues related to aviation medicine, aviation physiology, and human factors.

Virtual reality utilizes high-resolution, three-dimensional imagery to create an environment that is "virtually" real. The user (in this case, a pilot) has a real-time interaction with the virtual environment by becoming part of it and by being able to manipulate or control it. Virtual reality is an effective, efficient, and inherently safe instructional method that can be used to simulate logistically impractical, expensive, or even dangerous real-world settings (e.g., aviation and space environments and medical procedures).

CAMI has developed, under a contract with the Research Triangle Institute, a prototype Virtual Reality Spatial Disorientation Demonstrator (VRSDDD). The VRSDDD became the first spatial disorientation device in the world to use a virtual reality platform. It uses a powerful computer with terrain and aircraft database and a Head Mounted Display (HMD). Coupled with a platform rotating around the horizontal axis, the VRSDDD provides a highly realistic demonstration of the effects of spatial disorientation during flight.

The VRSDDD provides civil aviation pilots with the opportunity to experience, in an inherently safe environment, certain vestibular illusions that occur during IFR conditions. It provides a practical and highly convincing demonstration of the human

**NEW SIM.
CAMI
instructors
Larry
Boshers
(left) and
J.R. Brown
"preflight"
the new
virtual
reality
simulator.**



limitations to maintain spatial orientation during IFR conditions, as well as emphasizing the importance of relying on cockpit instrumentation to safely fly under these conditions. This device provides the practical means to convince VFR-rated pilots to stay out of IFR conditions, and it also increases awareness among IFR rated pilots that they are not impervious to the effects of spatial disorientation, simply because they hold an IFR rating.

The key difference between the VRSDDD and other spatial disorientation simulators is that it gives the pilot real-time feedback in 3-dimensional space. So, whatever happens to the virtual aircraft during the demonstration would probably happen to an aircraft in the real world.

Virtual reality technology is currently being used by other government organizations such as National Aeronautics and Space Administration and the Department of Defense to train astronauts, pilots, and tech-

nicians. Virtual reality is also being used to meet training and simulation needs in the private sector.

This VRSDDD will be used by civil aviation pilots, aviation medical examiners, and FAA flight crews participating in CAMI's Aviation Physiology training courses. It will also be used in support of the FAA's National Accident Prevention Program throughout the United States.

The use of virtual reality for aeromedical education programs will further contribute to CAMI's mission of promoting safety through aeromedical certification, education, aerospace medical/human factors research, and occupational health services.

For more information about the VRSDDD, please contact:

FAA Civil Aeromedical Institute
Aeromedical Education Division
AAM-400, P.O. Box 25082
Oklahoma City, OK 73125
Phone (405) 954-4837
FAX#:(405) 954-8016



Dr. Antuñano manages CAMI's Aeromedical Education Division. Mr. Brown is an instructor in the Division's Airman Education Branch.

AIR RAGE from page 1

should understand that the physiological effects of alcohol, both prior to boarding and in-flight, are more profound in the air traveler. Passengers usually have an empty stomach, are mildly dehydrated, and are exposed to the mild hypoxia of a pressurized cabin (at 6 to 8 thousand feet).

Alcohol, when combined with anxiety and a perceived loss of control, may turn the normal traveler into a disruptive passenger. This is not the only reason for disruptive behavior, but certainly the most common. A wide variety of motives and underlying pathology may exist for this condition. In 1997, for example, 23,000 illegal immigrants were deported by commercial airline with no escort for groups of less than 12. The majority of these deportations were uneventful; however, as one could imagine, several incidents were reported.

In another situation, passengers, especially the frequent business traveler, may resent authoritative airline figures (aircrew members). Passengers have experienced a decline in airline service to "no frills" accommodations, flight over-booking, and increasingly crowded flights. The resulting stress and "loss of control" may contribute to antisocial behavior.

Disruptive passengers are legally bound by jurisdiction and by both international and US federal law. The 1963 Tokyo Convention on Offenses and Certain Other Acts Committed On-board Aircraft, laid down the foundation for countries to prosecute arriving disruptive passengers. This international agreement was signed by 162 nations and was the basis for future International Civil Aviation Organization agreements (Montreal Conventions, Aviation Security Act, etc.). Based upon this agreement, the



"Alcohol, when combined with anxiety and a perceived loss of control, may turn the normal traveler into a disruptive passenger."

United States prosecutes inbound offenses, regardless of the carrier's nationality. Unfortunately, authority to prosecute does not equate with an obligation to prosecute, and minor offenses committed upon aircraft landing in other nations may go without prosecution (the so-called "jurisdictional gap"). Furthermore, the individual aircrew member or passenger should understand that they have no "standing" before the International Court of Justice (The Hague, Netherlands).

Within the United States, passenger interference is a federal crime. Pursuant to Federal Aviation Regulation 14 CFR. 91.11 (also known as FAR 91.11), passengers may not interfere with aircrew. The statute (title 49 USC 46504) establishes establishes punishment (less than 20 years if

unarmed; life if armed). Interestingly, federal law applies only to a "closed door" aircraft. For example, if the walkway is still attached and the door open, then local police have jurisdiction.

At the 1997 Disruptive Airline Passenger Conference, airline representatives, law enforcement officials, and members of the Association of Professional Flight Attendants and Allied Pilots Association agreed that communication was the key to successful prosecution. The aircrew member must communicate (give notice) to the passenger that they are disruptive and in violation of a federal offense. American Airlines aircrew actually give a written notice (In-flight Disturbance Report). Next, dispatch and airline ground operations must be notified, so that federal authorities meet the aircraft. In order to increase the availability of "federal authorities," some airports have designated local police as "federal deputies" (through the Civil Aviation Security Enhancement program). In addition, airlines are moving towards "zero tolerance" of disruptive passengers by initiating a Passenger Interference Database and facilitating the involvement of aircrew members with federal cases.

The AME should understand that "Air Rage" offenses are crimes against the individual, not the airline, and that prosecution rests with the US Attorney's office. Alternatively, the individual aircrew member may file an action "in tort." (A tort is an intentional, non-criminal action against the aircrew member.)

Fortunately, "Air Rage" has not expanded to the cockpit; however, the AME should have a general knowledge about the problems faced by aircrew members and their modern-day dogfight with disruptive passengers.



Dr. Borrillo is a flight surgeon with the US Air Force's 48th Aerospace Medicine Squadron at Lakenheath Royal Air Force Base, England. He is an AME, Board certified in aerospace medicine, and is also an attorney with the designation of Visiting Scholar, Cambridge University, England.

Office of Aviation Medicine News

AsMA Honors OAM Members

Representatives of the Office of Aviation Medicine were accorded numerous honors during the 70th annual meeting of the Aerospace Medical Association (AsMA) held in Detroit, Mich., from May 16-20, 1999.

Guillermo Salazar, MD, Southwest Regional Flight Surgeon, was elected a Fellow of AsMA and 2nd vice-president of the Iberoamerican Association of Aerospace Medicine.

Alex Wolbrink, MD, received the Association's Julian E. Ward Memorial award for outstanding achievement during residency training; Dr. Wolbrink joined the Civil Aeromedical Institute (CAMI) in September of last year upon completing his residency in aerospace medicine.

David Schroeder, PhD, and **Melchor Antuñano, MD**, respective managers of CAMI's Human Resources



Two AsMA honorees, Dr. Guillermo Salazar (left) and Dr. Alex Wolbrink (right), are congratulated by Federal Air Surgeon Dr. Jon Jordan.

Research and Aeromedical Education Divisions, were elected vice-presidents of AsMA. Dr. Antuñano was also appointed as deputy chair of the AsMA scientific program committee for next year's meeting and as scientific program chair for 2001 in addition to heading the policy committee of the AsMA Space Medicine Branch.

Pam Della Rocco, PhD, human factors research psychologist at CAMI, was named a Fellow of the Aerospace Human Factors Association and was elected president-elect of that organization.

William E. Collins, PhD, CAMI Director, was the recipient of the first President's Award from the AsMA Life Sciences and Biomedical Engineering Branch for outstanding contributions to furthering the research and technical innovation goals of that organization during the past six years.

Southern Region Helps Sun 'N Fun Celebrate Its 25th

The FAA Southern Region Medical Division participated at the Experimental Aircraft Association's Sun 'N Fun Fly-in at Lakeland, Fla., April 11-17, 1999. For the ninth straight year, Southern Region Flight Surgeon **Dr. David P. Millett** (right) manned the medical booth and coordinated the region's medical participation. Despite a grass fire and a thunderstorm towards the end of the week, attendance was a near-record 684,000; up from 639,400 last year. As usual, the first three days were the most heavily attended with a Sunday-Tuesday attendance of 350,000.

Dr. Millett answered inquiries at the medical booth from Sunday until noon Wednesday. During the first

half of the event, Millett conducted 114 consultations, with the majority of the questions being cardiovascular diseases, medication issues, and diabetes. The busiest day was the first, with 45 consultations.



At noon on Wednesday, **Dr. Larry Wilson** from the Miami Medical Field Office relieved Dr. Millett. During the latter half of the show, Dr. Wilson conducted 58 consultations. Total consultation for the week was 172. Wilson also gave a medical presentation Thursday afternoon on "Aeromedical Topics Update."

The overall medical participation was declared an unqualified success by Federal Aviation Administration officials. Plan for next year are already underway.

AME Receives Wright Brothers Memorial Award

James J. Hutson, MD (right), was recently honored by the Greater Miami Aviation Association as the recipient of their 71st Annual



Wright Brothers Memorial Award. Dr. Hutson is a true native of Miami and an aviation medical examiner of 39 years.

Growing up in Miami as the grandson of Miami's first permanent physician, Dr. James J. Jackson, Hutson and his two brothers were prepared for their medical careers from birth. His father was also a physician. Hutson graduated from Duke University and Duke University Medical School. After a World War II tour in the Pacific as a Navy physician, he returned to Miami and entered private practice. During the

Continued next page...



MACAU AME SEMINAR.
(L-R): Drs. Goodman, Jordan, Antuñano, Carpenter, Salazar, and Silberman.

HUTSON (continued)

Korean War, the Navy recalled him to active duty. After completion of the Navy Flight Surgeon program at Pensacola, he was assigned to the Brunswick, Maine, Naval Air Station. In 1953, he returned to Miami again, resumed private practice, and joined the staff of the Eastern Air Lines Medical Department. By the early 1970s, he was full-time with Eastern and then became Corporate Medical Director in 1978. He remained with Eastern even after Eastern discontinued flying in 1991. He has continued to this day to be an active AME and most recently was appointed as the medical director of the new Pan Am.

Hutson is a past president of the Airline Medical Directors Association. He is the medical director of two nursing homes, and he is active in many civic and church organizations.

International AME Seminar Held in Macau

A 5-day FAA International aviation medical examiner seminar was conducted in Macau at the request of **José Queiroz**, Chairman of the Civil Aviation Authority of Macau (CAAM). This is the first time that an AME seminar was conducted entirely by FAA speakers at the request of a foreign civil aviation authority. FAA participants included: Dr. **Jon Jordan** (Federal Air Surgeon) and Drs. **Melchor Antuñano** (Manager, Aeromedical Education Division), **Warren Silberman** (Manager, Aeromedical Certification Division), **Stephen Goodman** (Western Pacific Regional Flight Surgeon), **Guillermo Salazar** (South-

west Regional Flight Surgeon), and **Steve Carpenter** (Manager, Medical Appeals Branch). The CAAM paid all major expenses associated with FAA's involvement. The audience consisted of physicians from Macau, the Civil Aviation Authority of the People's Republic of China, Hong Kong, and Japan.

This event supported the FAA's key strategy to maintain global leadership by influencing international organizations to develop, harmonize, and implement safety standards of the American aerospace community.

40 YEAR PIN.
Federal Air Surgeon Dr. Jon L. Jordan (right) made a surprise presentation at the recent Basic AME seminar to CAMI Director Dr. William E. Collins: a pin to commemorate his 40th year of federal service and 38th anniversary with the FAA Office of Aviation Medicine.



Dr. Hordinsky Retires

When Dr. Jerry Hordinsky retired earlier this year as manager of the Aeromedical Research Division for the FAA's Civil Aeromedical Institute, he left behind an important and accomplished body of work.

Hordinsky oversaw a staff of 50 individuals committed to solving questions involving bioengineering, biochemistry, and biomedical issues. He was personally involved in the medical evaluation of airmen who had suffered from brain injuries or disease, understanding licit and illicit drug use by airmen, aircraft cabin in-flight medical care, and aircraft cabin environmental issues.

His work included responsibility for a major portion of the FAA's medical accident response capability. He authored and co-authored numerous scientific publications, including 10 Office of Aviation Medicine technical reports.

Prior to joining the FAA, he served as a National Aeronautics and Space Administration's flight surgeon from 1972-81, including a stint as the prime crew surgeon and medical team leader for Skylab III.



ANGER:

How to Control a Killer Emotion

by Glenn R. Stoutt, Jr., MD
Senior FAA Aviation Medical
Examiner

ANGER CAN RUN THE SPECTRUM from mild irritation to rage, and rage is a form of temporary insanity. None of us can think or act effectively if we are angry. If pilots are both hurried and mad, their engine(s) may take them directly to the scene of the crash.

Anger is a perfectly normal human emotion. It is an adaptive survival response to threats and danger that helps us defend ourselves. It becomes a problem when it becomes inappropriate, prolonged, excessive, or out of control.

Prehistoric man needed to develop a storm of anger to fight fiercely with a cave bear or saber-tooth tiger. But, he calmed down a few minutes after the fight ended (either calm or dead). His anger released a surge of adrenaline, preparing him for fight-or-flight. His blood pressure went up, blood was diverted to his muscles, blood clotted easier. The Neanderthal became a formidable fighting machine—but for an appropriate time only.

Contrast this with present-day man—not unlike *Homo sapiens aeronauticus*—who may get road rage and then stay angry for hours after the traffic incident (perceived as a personal insult) has long passed. He or she may stay mad at a boss, spouse, or even a frustrating situation for days, even weeks. Some people stay in an almost perpetual state of anger, with simmering irritation just waiting to explode.

All anger results from some sort of frustration with other people or even external events such as assembling an



“easy-to-assemble” appliance or waiting in line or struggling to loosen a rusted nut and bolt. One thing is certain: Angry people have a low tolerance for frustration.

The natural response to frustration is anger. Here’s the problem though: How much of it is normal or appropriate? Do we stay mad all morning because our car keys are lost? Does a rude sales person merit ruining an hour or so of your time? You can’t lash out at everyone who irritates or inconveniences you. Throwing a lamp through the front window is extreme; being sarcastic or sulking is a milder form of the same thing.

We are each born with certain largely unchangeable personalities. Some of us are laid-back and calm; others bristle easily, have a “short fuse.” Our undesirable traits—such as proneness to anger—can (and must) be controlled to a degree. Do you express the same degree of anger to the president of your company as you

TOPICS AND ISSUES

Just for the **Health of Pilots**

“OUR CHIEF PILOT IS A VERY EVEN-TEMPERED PERSON. HE’S ALWAYS MAD.”

“ONCE A MONTH, THE DISTRICT MANAGER BLOWS IN, BLOWS UP, AND BLOWS OUT. THE OFFICE IS DYSFUNCTIONAL JUST BEFORE, DURING, AND AFTER HIS VISITS.”

do to a subordinate? So, you really have some degree of control. You don’t scream at the boss.

Here’s an almost fatal example of the toll anger can take: An airline captain, who was known for his violent temper, was making a tricky approach in marginal weather and was off on his heading and altitude. The first officer was afraid to say anything until just before the situation became dangerous. In other words, he was not as fearful of a controlled flight into terrain as he was of incurring the fury and explosive tongue of his captain.

An angry pilot—even a mildly irritated one—is prone to make procedural errors. After several maddening delays at home one morning, a corporate pilot made four “procedural errors” driving to the airport. He overshot his regular turn, pulled in front of another motorist, was driving way too fast, and spilled hot coffee in his lap. Luckily, he calmed down before climbing into a Citation.

Life is full of natural frustrations. Life is not easy. There will always be pain, loss, injustice, and disagreements. If this frustration load leads to excessive or prolonged anger, two things can occur: The anger can be

Note: The views and recommendations made in this article are those of the author and not necessarily those of the Federal Aviation Administration.

Continued...

directed outward in the form of irritability or aggression; or it can be directed inward, resulting in fatigue and depression. In fact, long-standing unresolved anger is the main cause of being tired and depressed. It raises havoc with our general health.

In July 1997, the Beth Israel Deaconess Medical Center at Harvard Medical School reported that “anger is the affective state associated with myocardial ischemia [lack of blood flow to the heart muscle] and life-threatening arrhythmias [irregular heart rhythms], with at least 36,000 (2.4% of 1.5 million) heart attacks precipitated by anger in the United States [yearly].” Blowing up over something minor could put you in the hospital—or the morgue.

If you think you feel steamed most of the time, or if your anger is often out of control and you don’t know why, make an appointment with a competent psychotherapist who deals in anger management. The cost may be the same as a new set of tires for your car plus a new transmission. But, it may be the most important thing you will ever do for your marriage, job, health—or your life.

More than 90 percent of success in life is getting along with people (find what they like and do more of it; find what they don’t like and do less of it). No one enjoys being around someone who is—much of the time—cynical, demanding, suspicious, defensive, and hostile.

Understanding what triggers your anger will take a lot of time and motivation. Controlling your anger is as important as controlling your aircraft. After all, you didn’t get to be a hotshot pilot overnight. Be cool.

Yours for good health and safe flying,

Glenn Stoutt

TIPS FROM A PSYCHOTHERAPIST WHO SPECIALIZES IN ANGER CONTROL

- ✓ First, what doesn’t help? “Letting it all blow” is a myth. It is like throwing gasoline on a fire. Conversely, holding lots of anger in (suppressing it) for a long time does lots of havoc with your mood—and blood pressure.
- ✓ Of course, meditation, counting to ten, deep breathing, exercise, visualizing happy scenes and experiences, or yoga all may help some. But these recommendations are in all anger-management articles—things to do when you are already mad, but hardly able to think rationally. Use them, but remember what you really want to know is how to keep from letting crippling anger get started in the first place.
- ✓ The bottom line is learning how to prevent excessive and unreasonable anger, dangerous anger. Learn your own anger pattern so that you can prevent smoldering anger or blow-ups. What gets you angry? How do you handle it? Is anger a big problem in your life?
- ✓ Anger-prone people often feel they deserve special consideration from others and become highly irritated when they don’t get it.
- ✓ Respect yourself, be assertive—but not aggressive. Talk to an offending person when you are both calm and in a reasonably good mood. Say something like, “Chris, I like you and think you really can teach me a lot, but every day you seem to put me down, and I don’t hear anything positive about what I am doing. I go home tired and discouraged. What can we do to work things out?” Go on from here. (One woman did and then got fired, but her next job was sheer pleasure and she got \$11,000 more a year.) Nothing works all the time.
- ✓ Healthful anger is OK. Just try to be objective and say how you feel about things. Calmly let others know what your needs are.
- ✓ Realize that no one ever wins a power struggle.
- ✓ You can’t always help being around obnoxious people, but you can control how you react to them. You are the boss of your emotions and responses.
- ✓ Absolutely best of all: *Try to avoid things that get you steamed.* Try to identify, when you are calm and rational, the things that make you angry, and plan what you can do to avoid or control them. For instance, leave earlier for your job, and go home later if traffic drives you nuts. Better to spend the time at work than on the expressway. Devise strategies to avoid nasty people and frustrating situations as much as you reasonably can.
- ✓ Ask yourself, “Is this frustration enough to ruin my whole day, even an hour?”

Dr. Stoutt is a partner in the Springs Pediatrics and Aviation Medicine Clinic, Louisville, Ky., and he has been an active AME since 1960. No longer an active pilot, he once held a commercial pilot’s license with instrument, multiengine, and CFI ratings.

Winners of Aviation Medicine Awards for Excellence and Achievement

Awards Ceremony Honors Work in Aviation Medicine

The FAA's Office of Aviation Medicine (AAM) recently held its seventh annual awards program in Washington, DC, to recognize the contributions individuals made to aviation medicine last year.

Aviation Medicine employees from across the country nominated their colleagues for recognition. The winners were selected by a national AAM awards panel. The awards ceremony was conducted by Federal Air Surgeon Dr. **Jon Jordan** via interactive video teleconferencing. Plaques were presented at CAMI and in the regions as well as in Washington headquarters.

Nominations were also obtained for the "Friend of Aviation Medicine" award, given to FAA employees working in other offices.

Following are the winners in each category:

Outstanding Manager

★MELCHOR J. ANTUÑANO, MD

Civil Aeromedical Institute

★★★★★★★★★★

Outstanding Leadership

★RUSSELL J. LEWIS, PhD

Civil Aeromedical Institute

★★★★★★★★★★

Outstanding Innovator

a. Scientific/Technical

★DENNIS R. RESTER

Civil Aeromedical Institute

b. Administrative/Support

★FRANCIS E. ELLIOTT

Civil Aeromedical Institute

★★★★★★★★★★

Outstanding Team

★RALPH J. GALLEGOS

Headquarters

★ROBERT J. NEAL

Headquarters

★VICKY L. DUNNE

Headquarters

★★★★★★★★★★

Administrative Excellence

★MARY BETH HENSON

Civil Aeromedical Institute

★JOHN M. SMITH

Headquarters

★★★★★★★★★★

Technical/Scientific Publication

★ARVIND K. CHATURVEDI, PhD

Civil Aeromedical Institute

★★★★★★★★★★

AAM Mission Support (tie)

★HAROLD D. NELSON

★GAIL M. REYNOLDS

Civil Aeromedical Institute

★★★★★★★★★★

Outstanding Customer Service

★RITA M. SMITH

Civil Aeromedical Institute

★★★★★★★★★★

Friend of AAM

★NED REESE

Air Traffic Division Manager

Mike Monroney Aeronautical Center

★★★★★★★★★★

Flight Surgeon of the Year

★STEVEN A. SCHWENDEMAN, MD

Civil Aeromedical Institute

★★★★★★★★★★

Inspector of the Year

★ROBERT J. NEAL

Headquarters

★★★★★★★★★★

AAM Office of the Year

★HUMAN RESOURCES

RESEARCH DIVISION

Civil Aeromedical Institute

★★★★★★★★★★

Accessing PubMed and Uncover on the Internet

Katherine Wade

PubMed

<<http://www4.ncbi.nlm.nih.gov/PubMed>>

BEGINNING IN 1997, THE NATIONAL Library of Medicine provided free Internet access to MEDLINE and PRE-MEDLINE databases using the PubMed search system. PubMed databases contain more than 9 million citations dating back to 1966 and include current PREMEDLINE citations that are being indexed for MEDLINE. Over 80% of MEDLINE records include abstracts as they appear in the journals, and over 80% of the citations are published in the English language.

Last year there were approximately 130 million Medline searches done on the Internet. PubMed provides a variety of search modes to meet users' individual needs. You can run a simple search by entering a few search terms in the query box or construct complex search strategies using Boolean commands or a search menu. The *Help* function is especially valuable in detailing features and search and retrieval options within PubMed.

Uncover

<<http://uncweb.carl.org:80>>

The Uncover database is an online article delivery service (for a fee) that can be accessed for free database searching of the more than nine million available articles. Uncover serves as a complement to PubMed because the journals indexed are from scientific, technical, and general sources, as well as medical sources. Prior to initiating a search in an unfamiliar database, perusing the *Help* screens is advisable. Uncover allows retrieval using Boolean searching and truncation, both of which are useful functions and are explained in the *Help* screen. If an account has been established in Uncover, articles can be obtained through a document delivery service. Another nice feature of Uncover is the table-of-contents service, **Uncover Reveal**. Uncover Reveal is an automated alerting service that delivers the table-of-contents of your favorite periodicals directly into your E-mail. For a small fee, you can receive table-of-contents for as many as 50 periodicals that have been selected from among the 17,000 multidisciplinary titles in Uncover.



Katherine Wade is the FAA Civil Aeromedical Institute's Librarian.